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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,991	01/23/2001	Miyuki Sasaki	P20481	4070

7055 7590 10/29/2003

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RESTON, VA 20191

EXAMINER

CHANNAVAJJALA, SRIRAMA T

ART UNIT	PAPER NUMBER
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2177

DATE MAILED: 10/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/764,991

Applicant(s)

SASAKI ET AL.

Examiner

Srirama Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings filed on 9/10/2003 are objected to by the Draftsperson under 37 CFR 1.84 or 1.152, formal drawings are required in response to this office action, paper no. # 10

Priority

2. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Japan application no.10-252161, filed on 7 September 1998, Japan 10-208902, filed on 24 July 1998, PCT/JP99/03950 was filed on July 23, 1999.

Information Disclosure Statement

3. The information disclosure statement filed on 8/5/2003, paper no. # 6 and 9/10/2003, paper no. # 9 have been considered and a copy was enclosed to this office action, paper no. # 10

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2,6-7,11-12, 21-22,, are rejected under 35 U.S.C. 102(a or b) as being anticipated by Van Maren et al., [hereafter Van Maren], US Patent No. 5579516.

5. As to Claims 1, 6,11,16, 21, Van Maren teaches a system which including 'a data storage medium for recording and reproducing a file managed using a volume/file structure in which a number of data recording operations to a same area is limited' [Abstract, col 2, line 27-32], data storage medium corresponds to optical disk(s), volume/file structure corresponds to file set on a multiple volume media as detailed in Abstract, col 2, line 27-29, 'start address information for an unrecorded area existing in a volume space information being recorded in the volume space as part of root directory file management information' [col 2, line 42-50, col 4, line 21-30, line 55-62, fig 2, col 7, line 25-26], Van maren firstly directed to storing data files on a multiple volume media

set, more specifically set of files on a multiple volume media in a international standard for ISO/IEC 13346 for optical media [see Abstract], secondly, Van Maren teaches directory structure, more specifically fig 1 is an example of directory hierarchy having root directory DO, sub-directories such a sD1-D2 as detailed in col 4, line 31-34], thirdly, Van Maren specifically directed to information control blocks or ICB is part of structure which allows file entry information, i.e., writing data into optical disk would be first written on ICB for directory DO, followed by directory DO [col 4, line 55-57], start address information is integral part of Van Maren's teaching because Van Maren specifically directed to directory structures or files that providing an index to the data files on the disk or set of disks, further Van Maren also suggests for example lists the address of its parent directory, i.e., root directory lists the address of its own ICBs that would have start addresses, as best understood by the examiner, address that specifies specific location of a data item or first element of a set of data items within a storage or output device which may be optical disk or any ISO/IEC standard data storage devices as suggested by Van Maren [see col 4, line 21-29], further it is noted that start address of an unrecorded area in a directory corresponds to the space that has been allocated for each information control block that helps to built directories starting with directory DO that would have starting address [col 7, line 25-26]

6. As to Claims 2, 7, 12, 17, 22, Van Maren teaches a system which including 'start address information is recorded using an indirect entry for managing a root directory file recording area' [fig 2, col 4, line 63-67], root directory corresponds to fig 1, DO.

7. Claims 3-4, 8-9, 13-14, 18-19, 23-24, are rejected under 35 U.S.C. 102(a or b) as being anticipated by Leonhardt et al., [hereafter Leonhardt], US Patent No. 5485321.

8. As to Claims 3, 8, 13, 18, 23, Leonhardt teaches a system which including 'a data storage medium for recording and reproducing a file managed using a volume/file structure in which a number of data recording operations to a same are is limited' [Abstract, col 1, line 6-13], data storage medium for recording and reproducing corresponds to Leonhardt's computer data storage and recording, retrieving such as removable disks or magnetic type devices or optical disks and like as detailed in col 1, line 31-42], 'invalid data not used for retrieving volume/file structure, the invalid data being recorded before and after volume/file structure and a data file' [col 1, line 45-48, col 12, line 45-64, col 14, line 15-41, col 20, line 50-56], Leonhardt is directed to format and method for recording that is associated with control logic, more specifically, data storage method for linearly recording data blocks on a recording media [col 3, line 10-14], further it is noted that Leonhardt specifically suggests for example recording header would have both specific fields designated for valid and invalid data [col 12, line 45-64, col 20, line 50-56], Leonhardt suggests for example virtual beginning of tape or VBOTx marker has ability to designates the beginning of a valid collection of data blocks, also

VBOTx marker allows to track, and record valid and invalid data as detailed in fig 3, col 12, line 55-67, col 13, line 1-31], 'invalid extent management information for managing an invalid data recording area, the invalid extent management information being recorded in the volume space as part of root directory file management information' [col 1, line 45-48, col 12, line 45-64, col 20, line 50-56, col 21, line 57-67], recording valid or invalid data are integral part of Leonhardt's teaching because Leonhardt specifically suggests for example header field are designated for valid and invalid data that are automatically set during Scratch data mode for optimizing the recording process as detailed in col 20, line 50-64

9. As to Claims 4, 9, 14, 19, 24, Leonhardt teaches a system which including 'invalid extent management information is recorded using an allocation descriptor for managing a root directory file recording area' [col 20, line 50-64, col 21, line 57-67, col 22, line 1-14].

10. Claims 5,10,15, 20, 25-27, are rejected under 35 U.S.C. 102(a or b) as being anticipated by Caffarelli, Fabrizio [hereafter Caffarelli], EP0730274A2

11. As to Claims 5, 10, 15, 25-27, Caffarelli teaches a system which including 'a data storage medium for recording and reproducing a file managed using a volume/file structure in which a number of data recording operations to a same area is limited' [see Abstract], 'root directory file management information is plurality of recorded as

main chaining information and reserve chaining information' [page 9, col 15, line 23-46,, root directory corresponds to root directory that is assigned ID no. 1 as detailed in fig 9, chaining information corresponds to directory, subdirectory and file is identified by unique identifier is part of directory chain to locate required information as detailed in col 15, line 36-38], 'first address information corresponding to an area in which the main chaining information and reserve chaining information are recorded at a beginning of a volume space is recorded as part of a file set descriptor' [col 15, line 47-58, col 16, line 1-13, page 10, col 18, line 40-50], 'second address information corresponding to an area in which the main chaining information and reserve chaining information is update recorded is recorded as part of main chaining information and reserve chaining information' [col 13, line 31-46, col 16, line 46-58, col 17, line 1-6], reserve information area corresponds to Caffarelli fig 10, element 480, 505.

Response to Arguments

Applicant's arguments filed on 9/10/2003 have been fully considered but they are not persuasive, for examiners' response, see discussion below:

.a) At page 14, line 11-13, Claims 1-2,6-7,11-12,21-22, Van Maren et al., does not appear to disclose including a start address.....

As to the above argument [a], Van Maren firstly directed to storing data files on a multiple volume media set, more specifically, storing files data on multiple optical disk

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volumes in an optical disk auto changer compatible with ISO/IEC standards as detailed in Abstract, col 2, line 12-18, secondly, Van Maren teaches various information control blocks or ICBs that are related to meta-data, it is noted that meta-data includes directory information or directories, file information as detailed in col 2, line 34-36, thirdly, Van Maren specifically teaches for example each directory or sub-directory that lists the file(s) have names and addresses of information control blocks or ICBs [col 4, line 21-27], further it is noted that start address of an unrecorded area in a directory corresponds to the space that has been allocated for each information control block that helps to built directories starting with directory DO that would have starting address [col 7, line 25-26]

Start address information is integral part of Van Maren's teaching because Van Maren specifically directed to directory structures or files that providing an index to the data files on the disk or set of disks, further Van Maren also suggests for example lists the address of its parent directory, i.e., root directory lists the address of its own ICBs that would have start addresses, as best understood by the examiner, address that specifies specific location of a data item or first element of a set of data items within a storage or output device which may be optical disk or any ISO/IEC standard data storage devices as suggested by Van Maren [see col 4, line 21-29].

b) At page 15, line 4-5, Claims 3-4,8-9,13-14,18-19,23-24 Leonhardt et al., does not appear to provide any disclosure of recording or otherwise handling.....

As to the above argument (b), Leonhardt is directed to format and method for recording that is associated with control logic, more specifically, data storage method for linearly recording data blocks on a recording media [col 3, line 10-14], it is noted that Leonhardt specifically suggests for example recording header would have both specific fields designated for valid and invalid data [col 12, line 45-64, col 20, line 50-56]. As best understood by the examiner, Leonhardt suggests for example virtual beginning of tape or VBOTx marker has ability to designate the beginning of a valid collection of data blocks, also VBOTx marker allows to track, and record valid and invalid data as detailed in fig 3, col 12, line 55-67, col 13, line 1-31]

c) At page 15, line 15-16, Claims 5,10,15,20,25-27, Caffarelli does not disclose multiple sets of chaining

As to the above argument (c) , Caffarelli is directed to firstly, file system for incrementally recording data on a compact disks [see fig 1, Abstract], secondly, Caffarelli teaches previously recorded files are being read back, more specifically file system as detailed in fig 2 reads and interprets the recorded file/directory structure to locate the desired files as detailed in page 5, col 7, line 47-51], thirdly, Caffarelli also teaches organizing each and every directory and file in a specified manner, in other

words, each directory and each file in a directory is described by a file/directory record as detailed in fig 5 with appropriate flags, path, and volume descriptors, as best understood by the examiner, the reserve chaining information corresponds to Caffarelli's fig 10, element 480, 505 because this space is reserved for future use such as adding other attribute or location information related to file/directory records.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

The prior art made of record

- | | | |
|----|---------------|---------|
| a. | US Patent No. | 5579516 |
| b. | US Patent No. | 5485321 |
| c. | EP0730274A2 | |

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

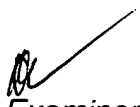
- | | | |
|----|---------------|---------|
| d. | US Patent No. | 5500887 |
| e. | US Patent No. | 5740422 |
| f. | US Patent No | 6173291 |
| g. | US Patent No | 5119291 |
| h. | US Patent No | 6456783 |
| i. | US Patent No | 4791623 |
| j. | US Patent No | 5778392 |
| k. | US Patent No | 5355497 |
| l. | US Patent No | 5347651 |

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is (703) 308-8538. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time. The TC2100's Customer Service number is (703) 306-5631.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (703) 305-9790. The fax phone numbers for the organization where the application or proceeding is assigned are as follows:

703/746-7238	(After Final Communication)
703/872-9306	(Offical Communications)
703/746-7240	(For Status inquiries, draft communication)

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.

sc 
Patent Examiner.
October 22, 2003.